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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/004,417	10/22/2001	Min-Koo Kim	678-761 (P9967)	7675
28249	7590	03/22/2006	EXAMINER	
DILWORTH & BARRESE, LLP 333 EARLE OVINGTON BLVD. UNIONDALE, NY 11553			ALPHONSE, FRITZ	
			ART UNIT	PAPER NUMBER
			2133	

DATE MAILED: 03/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/004,417

Applicant(s)

KIM ET AL.

Examiner

Fritz Alphonse

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

0.1 This office action is in response to the amendment filed on 12/01/2005. Claims 1, 2, 8 and 9 are amended.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schulz (U.S. Pat. No. 5,684,967) in view of Hagiwara (U.S. Pat. No. 5,629,948).

As to claim 1, Schulz (figs. 2-5) discloses a method of transmitting a physical layer information stream having a plurality of sub-blocks, each sub-block having an error correction code (col. 8, lines 44-57), comprising the steps of: dividing the encoded physical layer information stream having different sub-blocks into each of a plurality of slots (col. 7, lines 1-12); initially transmitting one of the plurality of slots (col. 5, lines 44-59); and re-transmitting slot data with a sub-block having an error repeated within the number of the sub-blocks after transmission of initial slot data (col. 8, lines 44-57).

Schulz does not explicitly disclose a receiving indication information that at least one of the sub-blocks in the initially transmitted slot from a receiver indicated an error and the other sub-blocks are good in reception; and repeating the at least one of the sub-blocks indicating the error within the error within a length of a slot permitted in retransmission.

However, these limitations are obvious and very well known in the art, as evidenced by Hagiwara (col. 4, lines 62 through col. 5 line 41).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine Schulz's device with the data transmission system, as disclosed by Hagiwara. Doing so would provide a data transmission scene in which the overhead due to the ARQ control data is reduced to resolve the problem of the throughput deterioration.

As to claims 3-6, Schulz (figs. 2-5) shows a method, wherein a code set is generated prior to initial transmission and the initial transmission is performed using a predetermined code in the code set; and wherein if at least one sub-block is retransmitted after the sub-blocks are transmitted a predetermined number of times, the code of the retransmission-requested sub-block is changed (col. 9, lines 9-15).

As to claim 7, Schulz (figs. 2-5) shows a method, wherein upon receipt of a retransmission request after retransmission-requested sub-blocks are transmitted using all the codes of the code set, the retransmission-requested sub-block is transmitted using a code selected in the predetermined order starting from the code for initial transmission (col. 2, lines 14-25).

3. Claims 2, 8, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schulz in view of Hagiwara as applied to claim 1 above, and further in view of Ghosh (U.S. Pat. No. 6,308,294).

As to claim 2, Schulz does not explicitly disclose a method, wherein if the at least one of the sub-blocks having the error is transmitted at least twice, the slot data repeats only the at least

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one of the sub-blocks and includes the number of the sub-blocks. However, these limitations are obvious and very well known in the art, as evidenced by Ghosh (col. 1, lines 50-64).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to improve upon the adaptive hybrid system, as disclosed by Ghosh. Doing so would allow retransmissions of different sizes, and is better on fading channels (col. 3, lines 1-5).

As to claim 8, the claim has substantially the limitation of claim 1. Therefore, it is analyzed as previously discussed in claim 1 above.

As to claim 9, Schulz does not explicitly disclose a method, wherein if the number of the transmitted sub-blocks is an integer-multiple of the number of the failed sub-blocks, the failed sub-blocks are repeated the same times if the failed sub-blocks have the same priority. However, these limitations are obvious and very well known in the art, as evidenced by Ghosh (col. 1, lines 50-64). See the motivation for the same reason in claim 2 above.

Allowable Subject Matter

4. Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 Form.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks, Washington, D.C. 20231

or faxed to: (703) 872-9306 for all formal communications.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fritz Alphonse, whose telephone number is (571) 272-3813. The examiner can normally be reached on M-F, 8:30-6:00, Alt. Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert De Cady, can be reached at (571) 272-3819.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Information regarding the status of an application may also be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

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may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Fritz Alphonse

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March 17, 2006



**GUY LAMARRE
PRIMARY EXAMINER**